



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

DR

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,046	03/31/2004	Jorg-Reinhard Kropp	MAIKP130US	7836
29393	7590	09/22/2006	EXAMINER	
ESCHWEILER & ASSOCIATES, LLC				CHIEM, DINH D
NATIONAL CITY BANK BUILDING				
629 EUCLID AVE., SUITE 1210				
CLEVELAND, OH 44114				2883
DATE MAILED: 09/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/815,046	KROPP ET AL.
	Examiner	Art Unit
	Erin D. Chiem	2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 June 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application
6) Other: _____.

DETAILED ACTION

This office action is in response to the amendment filed on June 26, 2006. Currently, claims 1-30 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Aronson et al. (US 6,986,679 B1) “Aronson” hereinafter.

Claim 1: Aronson in Fig. 7 discloses an optoelectronic arrangement comprising a printed circuit board (320), which defines a first direction parallel to a printed circuit board surface and a second direction perpendicular to the printed circuit board surface, a first electrical contact-making region (323 or 324) of the printed circuit board with a plurality of first contacts, a receptacle structure arranged on the printed circuit board (328) and having a receptacle opening for receiving a pluggable optoelectronic module (300), a pluggable optoelectronic module (100 or 200 of Figs. 9 and 10 respectively), a second electrical contact-making region of the optoelectronic module with a plurality of second contacts (328), wherein the second contacts of

the optoelectronic module are in electrical contact with the first contacts of the printed circuit board in the plugged-in position through projecting pins (326).

Regarding the limitation of the plug-in means of claim 1, applicant is claiming the product including the process of using the optoelectronic module, and therefor is of "product-by-process" nature. The courts have been holding for quite some time that: the determination of the patentability of product-by-process claim is based on the product itself rather than on the process by which the product is made. *In re Thrope*, 777 F. 2d 695, 227 USPQ 964 (Fed. Cir. 1985); and patentability of claim to a product does not rest merely on a difference in the method by which that product is made or used. Rather, it is the product itself which must be new and unobvious. Applicant has chosen to claim the invention in the product form. Thus a prior art product which possesses the claimed product characteristics can anticipate or render obvious the claim subject matter regardless of the manner in which it is fabricated or used. A rejection based on 35 U.S.C. section 102 or alternatively on 35 U.S.C. section 103 of the status is eminently fair and acceptable. *In re Brown and Saffer*, 173 USPQ 685 and 688; *In re Pilkington*, 162 USPQ 147.

Regarding claims 2-6, 8, and 9, Aronson discloses a locking and unlocking mechanism comprising a lever (220) to move between two end positions at the end side of the module (200) and see (col. 10, lines 11-19, and Figs. 3, 5, 9, 10, and 22). For clarification, a "transceiver bail" is a term used to describe the locking mechanism that is described as the "plug-in means" by applicant. The locking mechanism of a bail latch in the "lock" position is to apply a downward force ("lowered in the second direction") to the module such that the module is pushing downward within the plug-in cage. When the bail latch is released (e.g., in a horizontal position or angled above the receptacle opening) the downward force is no longer applied to the module

(“raised in the second direction”). Thus, this mechanism anticipates applicant’s claimed limitation of raised or lowered in the second direction.

Regarding claims 10-11, 14, 15, 16 Fig. 6 element 218 shows a latching mechanism that prevents the receptacle from moving in a second direction away from the printed circuit board surface. The latch is deactivated when the module is raised in the second direction (col. 10, lines 11-19).

Regarding claim 22-25, the module further comprising a heat sink (500) configures to project into the receptacle structure via and opening (360) at the top side of the receptacle structure and makes large-area mechanical contact with the module in the plugged-in position. The spring means configured to press the heat sink against the plugged in module with a spring force is the heat sink spring clip (504). Furthermore, the spring means additionally presses the first and second electrical contact-making regions. Element 520 are the spring arms that are formed in resilient fashion and connect to the side parts together, wherein the spring arms partly rest on the heat sink and exert a spring force on the heat sink in the second direction; all the limitations are shown in exemplary embodiment of Fig. 12.

Regarding claims 26-28, the shielding cage comprising an electrically conductive material is shown in Fig. 7. The plurality of pins protruding from the underside is mechanically fixedly connected to the printed circuit board (320).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aronson in view of Kruger et al. (US 2004/0101257 A1), “Kruger” hereinafter.

Aronson discloses all of the claimed invention except for the arms each having a y-shaped branch to form two sub-arms in such a way that one sub-arm is in contact with the printed circuit board or the receptacle structure.

Kruger discloses in Fig. 8 two set of sub-arms shaped like the letter “Y” attached to each end of the lever arm for the purpose of increasing spring force when the lever arm is engaged. [0034].

Since Aronson and Kruger are both from the same field of endeavor, the purpose disclosed by Kruger would have been recognized in the pertinent art of Aronson.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form y-shaped springs at the ends of the lever arm. The motivation for adding the Y-shaped springs is to increase the locking strength of the plug in module when the lever arm is engaged.

Response to Arguments

Applicant's argument regarding the art rejection has been further clarified in the above 102 and 103 rejections. The remaining issue is the invocation of 35 USC 112 sixth paragraph.

According to MPEP 2181 a claim limitation will be interpreted to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

- (A) the claim limitations must use the phrase "means for " or "step for";
- (B) the "means for " or "step for " must be modified by functional language; and
- (C) the phrase "means for " or "step for " must not be modified by sufficient structure, material, or acts for achieving the specified function.

Applicant's claim language is deemed to improperly invoke 35 U.S.C. 112, sixth paragraph. In regards to claim 1, applicant's amendment met the first two criterion (A) and (B); however, the limitation on lines 12-13 does not meet the third criteria.

Firstly, the recitation "initially in the first direction, and then the second direction" is an act of assembling the module. Secondly, the recitation "resulting in a plugged-in position" achieves a specific function. Therefore, the combination of the limitations mentioned above fails the third (C) criteria.

In conclusion, the improper invocation of 35 U.S.C. 112, sixth paragraph is not fully considered and the amended limitation remains a product-by-process limitation and is not given patentable weight.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2883

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDC

Erin D Chiem
Examiner
Art Unit 2883

Frank G. Font

Frank G. Font
Supervisory Primary Examiner
Technology Center 2800